

## Persons who Inject Drugs

Injection drug use is a well-known route of transmission of blood-borne infections (CDC, 2018). In 2011, it was estimated that 2.6 percent of persons in the United States (U.S.) had ever used illicit injection drugs and that 0.3 percent or approximately one million persons had used illicit injection drugs in the past year (Lansky et al., 2014). The most commonly injected illicit drugs in the U.S. are cocaine, amphetamines, heroin and other opioids (AVERT).

Although the U.S. is experiencing an opioid overdose epidemic, HIV incidence among persons who inject drugs (PWIDs) has decreased by 90 percent since the early 1990s (CDC, 2013, 2018b). This decline, however, has slowed in recent years and injection drug use (IDU) remains an important route of HIV transmission in the U.S., particularly among women (Hall et al., 2008). Nationally, among females 13 years of age and older with HIV reported in 2016, 12.5 percent of new infections were attributed to IDU (CDC, 2017). In 2016, among males 13 years of age and older, 3.9 percent of newly reported infections were attributed IDU and 3.7 percent to both male-to-male sexual contact (MSM) and IDU (CDC, 2017).

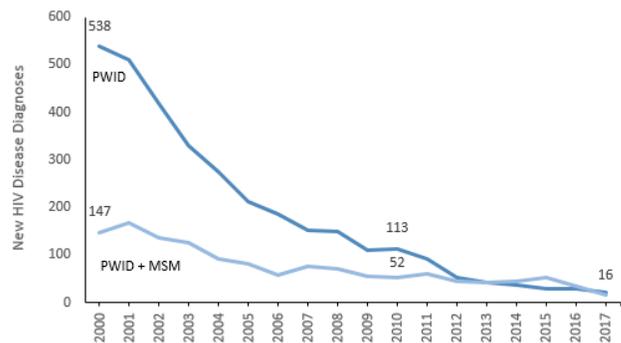
PWID are at increased risk of acquiring HIV due to a number of behaviors related to drug use and increased likelihood of engaging in risky sexual behaviors (HHS, 2014). Data collected in 2015 from 20 U.S. cities that have high rates of HIV infection found that PWID reported high rates of practices that increase risk of HIV infection, including needle reuse (34 percent) and sharing of other injection equipment (56 percent) (CDC, 2018c). High rates of condomless sexual contact in the past 12 months was reported by male and female PWID (CDC, 2018).

Physiological factors can increase risk of HIV transmission among PWID. For example, some injected illicit drugs, like methamphetamine, can dry out mucosal tissues, leading to small tears and cuts during sex which increased risk of HIV transmission (CDC). Use of illicit drugs can also negatively impact HIV treatment efficacy and can reduce compliance with HIV treatment regimens (U.S. Department of Health & Human Services, 2014).

### New HIV Disease Diagnoses (Incidence)

In Illinois, during 2013–2017, injection drug use was identified as a transmission risk factor for 2.1 percent (n=160) of newly reported HIV infections.\* Individuals who identified as both MSM and PWID accounted for an additional 2.5 percent of new HIV diagnoses (n=192).

**Figure 1. New HIV Disease Diagnoses among Persons Who Inject Drugs by Year, Illinois, 2000–2017**



**Source:** Illinois Department of Public Health, June, 2018

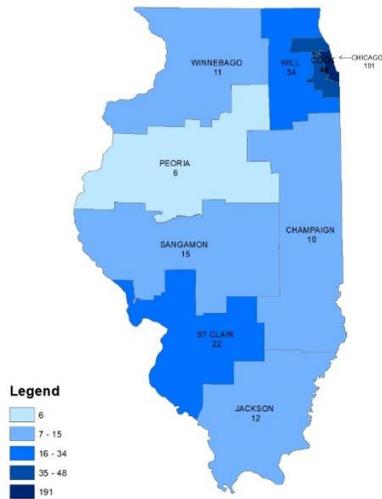
Since 2010, the number of new HIV infections reported among PWID in Illinois has declined (Figure 1). In 2017, 21 new HIV disease diagnoses were attributed to IDU compared to 113 in 2010; among PWID who are also MSM, reported infections declined from 52 in 2010 to 16 in 2017 (Figure 6). The reasons for the decline are not known but may include decreased viral load among HIV positive PWID due to effective treatment and the impact of prevention programs such as clean syringe exchanges and use of pre-exposure prophylaxis (Gilber et al., 2011; North American Syringe Exchange Network, 2018).

### Geography

The majority of HIV diagnoses among PWID and PWID who are also MSM during 2013–2017 were in Chicago (n=191) and Cook County (n=48), the areas of Illinois with the highest population density. Outside of Chicago and the collar counties, less than 40 diagnoses per region attributed to IDU occurred over this five-year period (Figure 2).

\*7,768 new HIV diagnoses were reported in Illinois during 2013–2017; 1,695 (22 percent) had no risk category reported

**Figure 2. New HIV Disease Diagnoses among Persons who Inject Drugs by Region, Illinois, 2013–2017**

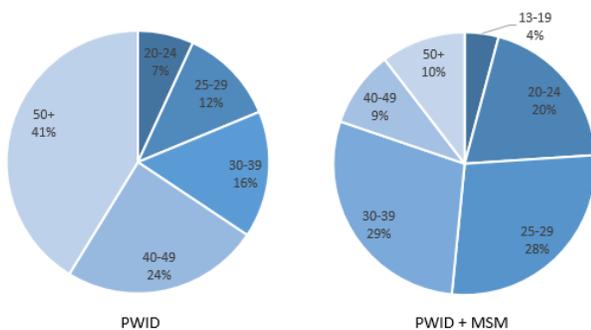


Source: Illinois Department of Public Health, June, 2018

**Age at Diagnosis**

PWID and PWID who are also MSM are two distinct populations. Most PWID were diagnosed with HIV disease when 40 years of age and older with 41 percent of PWID diagnosed from 2013–2017 aged 50 years or older at time of diagnosis (Figure 3). PWID who are also MSM were diagnosed with HIV at a younger age with the majority aged 20–39 years at diagnosis.

**Figure 3. New HIV Disease Diagnoses among Persons who Inject Drugs by Age at Diagnosis, Illinois, 2013–2017**

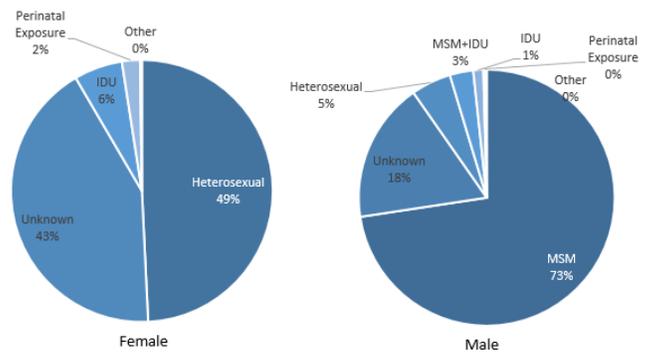


Source: Illinois Department of Public Health, June 2018

**Sex**

Injection drug use accounted for a slightly larger percentage of newly reported HIV disease diagnoses among women (six percent) than men (four percent) in Illinois during 2013–2017.

**Figure 4. New HIV Disease Diagnoses by Transmission Risk Category and Sex, Illinois, 2013–2017**

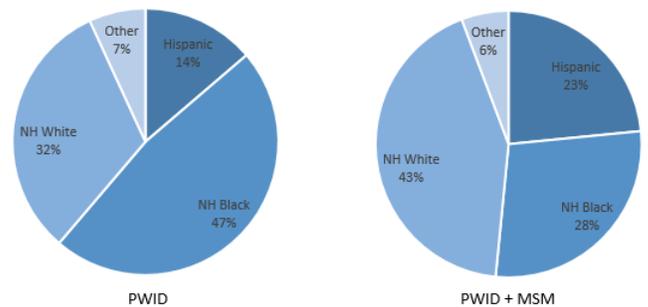


Source: Illinois Department of Public Health, June 2018

**Race/Ethnicity**

Among PWID newly diagnosed with HIV disease in Illinois from 2013–2017, 47 percent were Non-Hispanic (NH) black and 32 percent were NH white (Figure 5). Among PWID who are also MSM, a larger proportion were NH white (43 percent) with NH blacks accounting for 28 percent of new infections. NH blacks accounted for 14.6 percent of the total population of Illinois in 2017 (U.S. Census Bureau, 2017).

**Figure 5. New HIV Disease Diagnoses among Persons who Inject Drugs by Race/Ethnicity, Illinois, 2013–2017**

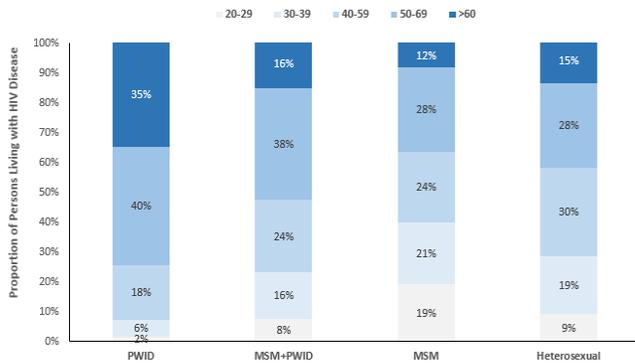


Source: Illinois Department of Public Health, June 2018

**Persons Living with HIV Disease (Prevalence)**

At the end of 2017, there were 3,703 persons living with diagnosed HIV disease in Illinois with IDU identified as the transmission risk category. This risk group accounted for 9.4 percent of persons living with HIV/AIDS (PLWHA) in 2017. A larger proportion of PWID were over than the age of 50 years (75 percent) in 2017 compared to other HIV transmission risk groups (Figure 6).

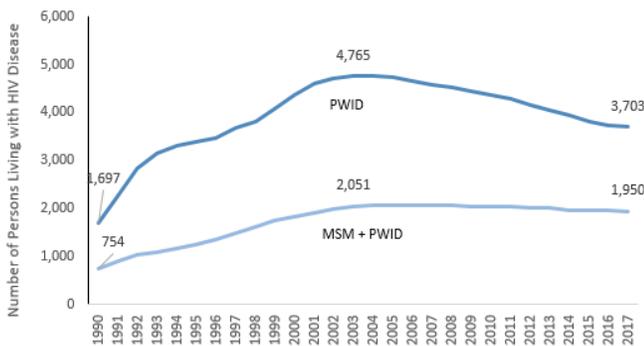
**Figure 6. Age Distribution of Persons who Inject Drugs Living with HIV Disease, Illinois, 2017**



Source: Illinois Department of Public Health, June, 2018

The declining number of PWID living with HIV disease (Figure 7), indicates that the mortality rate is greater than the incidence rate in this risk group. Older age at diagnosis, deferment of HIV treatment for PWID by healthcare providers, and significant Hepatitis C co-infection may contribute to higher mortality rates among in this risk group (Westergaard et al., 2012; May et al., 2015).

**Figure 7. Number of Persons who Inject Drugs Living with HIV Disease, Illinois, 1990–2017**



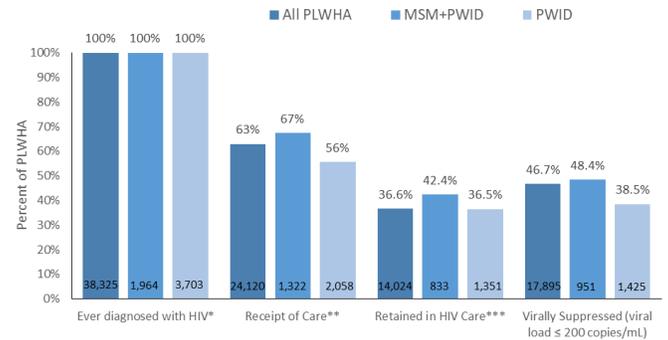
Source: Illinois Department of Public Health, June 2018

### Retention in Care and Viral Suppression

Receiving appropriate HIV care and achieving viral suppression are key to preventing the negative sequelae of HIV infection and reducing risk of HIV transmission. Although PWID were retained in HIV care at a similar proportion to all the overall population of PLWHA (Figure 8), the proportion that were virally suppressed (38.5 percent) was lower than among the overall population (46.7 percent)

and also lower than among PWID who are also MSM (48.4 percent).

**Figure 8. Prevalence-Based HIV Care Continuum for all PLWHA, Persons who Inject Drugs and Men who Have Sex with Men who Also Inject Drugs Aged ≥13 Years, Illinois, 2017**



\*Ever diagnosed with HIV is the number of persons diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017

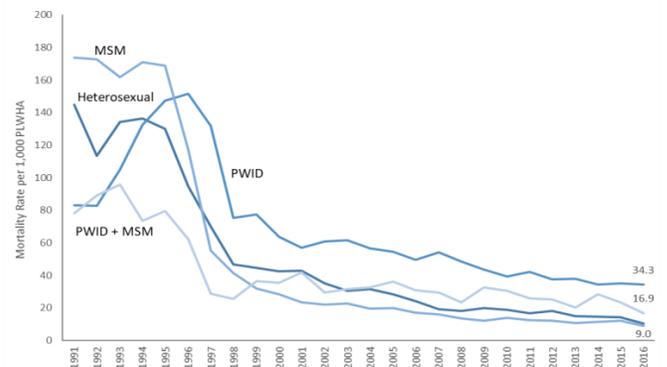
\*\*Receipt of HIV Care is defined as having ≥1 care visits between 1/1/2017–12/31/2017

\*\*\*Retained in HIV Care is defined as having ≥ 2 or more care visits between 1/1/2017–12/31/2017 at least 91 days apart

### Mortality

Mortality rates have declined dramatically among all HIV transmission groups. The mortality rate, however, remains highest among PWID (Figure 9). Older age at diagnosis among PWID (Figure 3) may negatively affect survival rates (Costagliola, 2014).

**Figure 9. Mortality Rate by Transmission Risk Factor, Illinois, 1991–2016**



Source: Illinois Department of Public Health, June 2018

Note: Calculated as the number of deaths in a calendar year divided by the number of PLWHA in each transmission category alive at the end of the previous calendar year

### Summary

Despite the opioid overdose epidemic, the number of newly reported HIV infections among PWID continued to decline from 2000 to 2017. Injection drug use, however, continues to be a risk factor for

HIV infection and accounts for a higher proportion of infections among women. PWID who are also MSM are a distinct population from the PWID population. This risk group is younger and a higher proportion are NH white.

Viral suppression rates are lower among PLWHA who are PWID than the overall population. Although mortality rates among PWID have declined dramatically since the early 1990s, this risk transmission group continues to have the highest mortality rate among PLWHA.

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